

REMARKS

Receipt of the Office Action mailed August 1, 2000 is acknowledged.

Claim 1 has been amended and claim 2 has been amended without prejudice or disclaimer. Claim 1 has been amended to overcome the objections and rejections under 35 U.S.C. § 112, but has not been amended to overcome the prior art rejections. Claims 1 to 11 stand rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite. Claims 1 to 11 stand rejected under 35 U.S.C. § 103(a) as being obvious over Korlatzki (GB 2035198) in view of Frey (U.S. Patent No. 5,840,807). These rejections are respectfully traversed. Reconsideration is requested.

I. Rejection of claims 1-11 under 35 U.S.C. § 112, second paragraph, as being indefinite

The Examiner states that it is unclear whether or not the terms "biaxially stretched," "thermoset," "tubular" and "seamless" refer also to the multilayer casings. Applicants submit that it is clear from claim 1 that both the single-layer and the multi-layer casings are biaxially stretched, thermoset, tubular and also seamless. However, in order to further advance prosecution, claim 1 has been amended to expressly state this. The Examiner further objected to the terms "hard" and "soft" in claim 1. Applicants point out the terms "hard" and "soft" in claim 1 are specifically defined on page 7 of the specification. Thus, "hard aliphatic polyamide blocks" are polyamide blocks having a glass-transition temperature of from 20 to 80°C, whereas "soft aliphatic polyether blocks" are polyether blocks having a glass-transition temperature of from -100 to -20°C. The claims have been amended to reflect this definition.

The term "which block copolymer" objected to by the Examiner, refers to the block copolymer containing both the hard and the soft blocks. This is clear from the recitation of the term "block copolymer" and the fact that the formulae recited below includes both polyether and polyamide units. The second structural formula in claim 1 has been labeled as "(II)." In view of the foregoing amendment and remarks, reconsideration and withdrawal of the rejection are respectfully requested.

II. Rejection of claims 1-11 under 35 U.S.C. § 103(a) as being unpatentable over Korlatzki (GB 2,035,198 A) in view of Frey (US 5,840,807)

Korlatzki teaches a tubular food casing made of a shrinkably stretched plastics material, which comprises at least one aliphatic polyamide having a Tg in the dry state of 48°C or more, which upon absorption of moisture is lowered to at least 3°C, preferably to -5°C, and especially to -20°C (column 3 (page 2), lines 31-38). The aliphatic polyamide may be present in admixture with a ionomer resin (which is in particular an inorganic salt of an ethylene (meth)acrylic acid copolymer), a modified ethylene vinylacetate copolymer and/or a modified polyethylene. As the Examiner recognizes, Korlatzki does not disclose that any of the aliphatic polyamides may contain polyether blocks or polyether segments. Korlatzki further fails to suggest that any of the optionally present further polymers could be a polyether or could contain segments or blocks thereof. The biaxially stretched and heat-set tubular food casing according to Korlatzki has a relatively low permeability for water vapor and oxygen. Specifically, columns 7 and 8 of Korlatzki indicate that “the casing according to the invention meets the requirements made of it regarding permeability to water vapor and gas.” See column 7, lines 45-47. Table 2 of Korlatzki further expands on suitable water vapor permeability being in a range of from 12 to 50 g/m² · d and a oxygen permeability in a range of 9 to 30 ml/m² · d · atm.

Frey, on the other hand, teaches a thermoplastic packaging film based on a polymer containing polyamide blocks and polyether blocks, “in order to conserve fresh produce such as fruit and vegetables or freshly cut meat.” See column 1, lines 10-13. This film is disclosed as being especially suitable to being used for “for conserving the taste of fruit or vegetables which have just been harvested and also for preventing their degradation.” See column 1, lines 14-16. There is no suggestion that the film of Frey could be tubular, or that it could be biaxially stretched or thermoset.

To achieve the object of preserving the quality of fresh fruits or freshly cut meat, Frey indicates that the film must have a high permeability for water vapor and oxygen. See col. 1, lines 40-43 (“thermoplastic film which is permeable to water”); column 1, lines 56-58 (“thermoplastic film based on a polymer containing polyamide blocks and polyether blocks, which is permeable (I) to water vapor...”); and col. 4, lines 60-61 and lines 64-67, where it is disclosed that the oxygen permeability is preferably in a range of from 1,200 to

8,000 ml/m² · d · atm at 0% relative humidity and 23°C for a 25 μm film, and that the water vapor permeability is in a range of from 2,000 to 25,000 g/m² · d at 50% r.h. and 38°C).

There would have been no motivation for one skilled in the art to combine the teachings of Frey with those of Korlatzki. Korlatzki is directed to maintaining the freshness and preventing the degradation of fresh fruits and vegetables and freshly cut meat. See column 1, lines 10 to 17. Korlatzki on the other hand, is directed to tubular film for packing foodstuffs, especially sausages and cheeses that are heated to 70 to 95°C. See the abstract. Other than a tenuous connection of edible substances that both disclosures share, there is nothing in the prior art that would have motivated the skilled artisan to combine the teachings of these prior art references. The only motivation comes from applicants' own disclosure, which, of course, is prohibited.

Moreover, from the teachings in Frey, one skilled in the art would have been motivated away from combining references. In this regard, the skilled artisan would interpret requirement for a high oxygen and water permeability as "teaching away" from the claimed invention. *In re Gurley*, 27 F.3d 551, 552 (Fed. Cir. 1994) ("A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be lead in a direction divergent from the path that was taken by the applicant."). In the instant case as noted above, Frey teaches a water permeability on the 2,000 to 25,000 g/m² · d and an oxygen permeability in the range of from 1,200 to 8,000 ml/m² · d · atm. In fact, the entire disclosure of Frey concerns providing a film that includes a high water and oxygen permeability.

In contrast, the water permeability of Korlatzki is in a range of from 12 to 50 g/m² · d, and an oxygen permeability of 9 to 30 ml/m² · d · atm as set forth in Table 2. As Korlatzki teaches at columns 7 and 8, this water and oxygen permeability are necessary so that "the casing according to the invention meets the requirements made of it regarding permeability to water vapor and gas." See column 7, lines 45-47.

Applicants point out that the data from Frey are for a 25 μm film, whereas Korlatzki in Table 2 refers to casings having a wall thickness of 60 or 63 μm, respectively. However, in Table 1 of Frey, the properties of films having a thickness of 25 μm and

However, in Table 1 of Frey, the properties of films having a thickness of 25 μm and 50 μm are reported. As can be seen from the data in the table, the water vapor permeability of a 50 μm casing is the same as that of a 25 μm casing. The oxygen permeability decreases with increasing thickness, but even for a 60 μm film the oxygen permeability will not fall within the range set forth by Korlatzki.

Thus, the copolymer of Frey provides a water and oxygen permeability that is significantly more than 10 times greater than that allowed by Korlatzki. In view of these disparate teachings, one skilled in the art seeking to improve the properties of a tubular, biaxially stretched and thermoset food casing as taught by Korlatzki would not have turned to the block copolymers as taught by Frey, since this would have resulted casings with completely different properties. Accordingly, the combination of references fails to establish a *prima facie* case of obviousness, and reconsideration and withdrawal of the rejection is respectfully requested.

In view of the foregoing, it is respectfully urged that the present claims are in condition for allowance. An early notice to this effect is earnestly solicited. Should there be any questions, Examiner Figueroa is courteously invited to contact the undersigned at the number shown below.

Respectfully submitted,

Date November 1, 2000

By Todd J. Burns

FOLEY & LARDNER
Washington Harbour
3000 K Street, N.W., Suite 500
Washington, D.C. 20007-5109
Telephone: (202) 672-5300
Facsimile: (202) 672-5399

Richard L. Schwaab
Reg. No.: 25,479
Todd J. Burns
Reg. No.: 38,011

Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time required for timely acceptance of same, the Commissioner is hereby authorized to charge Deposit Account No. 19-0741 for any such fees; and applicant(s) hereby petition for any needed extension of time.